

REMARKS

Claims 21 to 40 are pending. Claims 1-20 have been previously canceled. Claims 22-30 and 34-40 are currently amended.

Reconsideration of the application, as amended, is requested.

Claims 22-30 and 34-40 have been amended to correct editorial errors.

§112 Rejections

Claims 22-30 and 35-40 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 22-30 and 35-40 have been amended as suggested in the Office Action.

In summary, Applicants submit that the rejection of claims 22-30 and 35-40 under 35 U.S.C. §112, second paragraph, has been overcome, and that the rejection should be withdrawn.

§103 Rejections

-U.S. Pat. No. 4,999,168 (TenEyck) in view of U.S. Pat. No. 5,290,522 (Rogers et al.)

Claims 21-39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 4,999,168 (TenEyck) in view of U.S. Pat. No. 5,290,522 (Rogers et al.).

The rejection of claims 21-39 under 35 USC § 103(a) as being unpatentable over '168 (TenEyck) in view of '522 (Rogers et al.) is unwarranted and should be withdrawn.

Applicant claims, in claim 21, a pollution control device comprising a pollution control element arranged in a casing with a mounting mat disposed between said casing and said pollution control element, said casing having an exterior exposed to the atmosphere, said mounting mat comprising at least one intumescent layer disposed between at least one first non-intumescent layer and at least one second non-intumescent layer, with said at least one first non-intumescent layer being disposed between said at least one intumescent layer and said pollution control element, and said at least one second non-intumescent layer being disposed between said at least one intumescent layer and said casing,

wherein said at least one intumescent layer comprises an intumescent material and has a surface density of at least about 500 g/m², said at least one first non-intumescent layer comprises inorganic fibers, has a surface density of at least about 450 g/m² and insulates said at least one intumescent layer from excessive heat from said pollution control element, and said at least one second non-intumescent layer comprises inorganic fibers, has a surface density of at least about 450 g/m² and insulates said at least one intumescent layer from relatively lower temperatures of said casing.

First, Applicant does not agree with some of the characterization of the references relied upon. For example, with regard to '168 (TenEyck), sometimes layer 24 is referred to in the Office Action as an intumescent layer and sometimes it is referred to as a non-intumescent layer. Further, the Office Action states "...intumescent layer, 24, has a thickness of 0.2 inches ..." (with reference to col. 5, lines 5-10), yet the 0.2 inch thickness referred to at col. 5, lines 12 to 14 is for "intumescent layer 22" not "reinforcing layer 24." In fact, the thickness of reinforcing layer 24 appears to be relatively thin (see col. 5, lines 49-64; also see col. 3, lines 64-67). Specific

thicknesses discussed are at col. 5, lines 55-59, with the largest being “up to 7 mil” which is about 0.0178 cm.

Second, a proper reason for combining ‘168 (TenEyck) and ‘522 (Rogers et al.) to reject claim 21 (and therefore directly or indirectly dependent claims there from) has not been set forth in the Office Action. It is alleged in the Office Action that it would be obvious to one having ordinary skill in the art at the time of the invention to have modified the three layers of ‘168 (TenEyck) in view of ‘522 (Rogers et al.). Applicant submits the Office Action needs to articulate a rationale reason why one of ordinary skill in the art would be motivated to substitute a ‘522 (Rogers et al.) non-woven mat for the ‘168 (TenEyck) reinforcing layer to try to arrive at Applicant’s claimed invention, and that such proper reasoning is not provided in the Office Action.

It is stated in the Office Action that ‘168 (TenEyck) does not disclose the surface density of the non-intumescent layer. Turning to Applicants’ claim 21, at least one second non-intumescent layer comprising inorganic fibers is required to be disposed between the at least one intumescent layer and the casing. Further, the at least one second non-intumescent layer is required to have a surface density of at least about 450 g/m², which Applicant understands is said in the Office Action to not be disclosed in ‘168 (TenEyck), and hence the Office Action relies on the combination of ‘168 (TenEyck) in view of ‘522 (Rogers et al.) to overcome at least this deficiency.

As discussed above, the thickness of reinforcing layer 24, which Applicant understands from the Office Action is being equated with Applicants “at least one second non-intumescent layer” is being substituted for the non-woven mat from ‘522 (Rogers et al.), appears to be relatively thin (see col. 5, lines 49-64; also see col. 3, lines 64-67). Again specific thicknesses discussed for ‘168 (TenEyck) reinforcing layer 24 are at col. 5, lines 55-59, with the largest being “up to 7 mil,” which is about 0.0178 cm. By contrast, the non-woven mat from ‘522 (Rogers et al.) being substituted for the relatively thin reinforcing layer 24 from ‘168 (TenEyck) appears to be significantly thicker.

The non-woven mat from '522 (Rogers et al.) can preferably be stitched bonded or needle-punched. While specific thicknesses of the generic non-woven mat are not disclosed, at col.6, lines 28-31, it is said that preferably the thickness of their needle-punched non-woven mats is from about 0.5 cm to about 3 cm. Further, the thickness of the needle-punched mat in Example 1 is stated to be about 0.16 cm. The thicknesses of the cast non-woven mats in Example 2 and 3 are stated to be about 0.33 cm. Therefore, it appears the non-woven mats from '522 (Rogers et al.) being proposed in the Office Action to be substituted for the relatively thin layer (24) of '168 (TenEyck) are significantly thicker.

Given the apparent significant differences in thicknesses between the '168 (TenEyck) reinforcing layer and the '522 (Rogers et al.) non-woven mats, the Office Action also needs to articulate a rationale reason why one of ordinary skill in the art would be motivated to substitute a '522 (Rogers et al.) non-woven mat for the '168 (TenEyck) reinforcing layer to try to arrive at Applicant's claimed invention.

While it is stated in the Office Action with regard to certain dependent claims that the relative thicknesses of the intumescent and non-intumescent layers that one having ordinary skill in the art would have adjusted through routine experimentation the relative thicknesses of the layers in the mounting mat in order to optimize the mounting strength, thermal properties, cost of manufacturing, and thermal holding properties, the Office Action fails to articulate a rationale reason why one of ordinary skill in the art would be motivated to even look to '522 (Rogers et al.) in the first place to try to modify '168 (TenEyck) to try to arrive at Applicant's claimed invention, given the apparent significant differences in thicknesses between the '168 (TenEyck) reinforcing layer and the '522 (Rogers et al.) non-woven mats.

In summary, the rejection of claims 21-39 under 35 U.S.C §103(a) as being unpatentable over '168 (TenEyck) in view of '522 (Rogers et al.) is unwarranted and should be withdrawn.

- U.S. Pat. No. 4,999,168 (TenEyck) in view of U.S. Pat. No. 5,290,522 (Rogers et al.) and further in view of applicant's admission of prior art.

Claim 40 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over '168 (TenEyck) in view of '522 (Rogers et al.), and in further view of applicant's admission of prior art.

Claim 40 depends from 21. Claim 21 is patentable over '168 (TenEyck) in view of '522 (Rogers et al.) for at least the deficiency discussed above. Applicant's alleged admission of prior art fails to overcome this deficiency. Therefore, claim 40 should also be patentable.


In summary, the rejection of claim 40 under 35 U.S.C. § 103(a) as being unpatentable over '168 (TenEyck) in view of '522 (Rogers et al.), and in further view of applicant's admission of prior art is unwarranted and should be withdrawn.

In view of the above, it is submitted that the application is in condition for allowance.

Examination and reconsideration of the application, as amended, is requested.

Respectfully submitted,

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